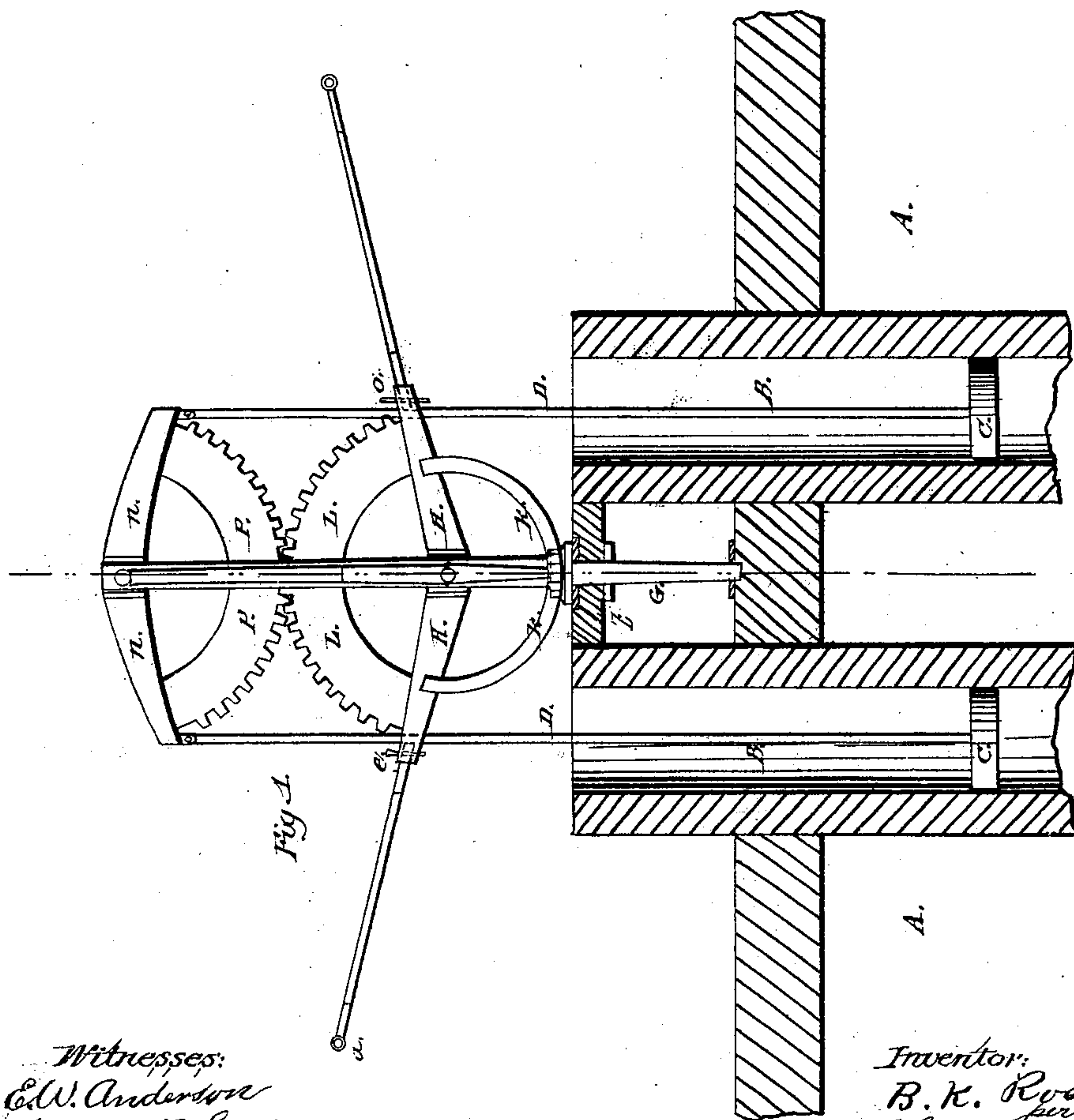
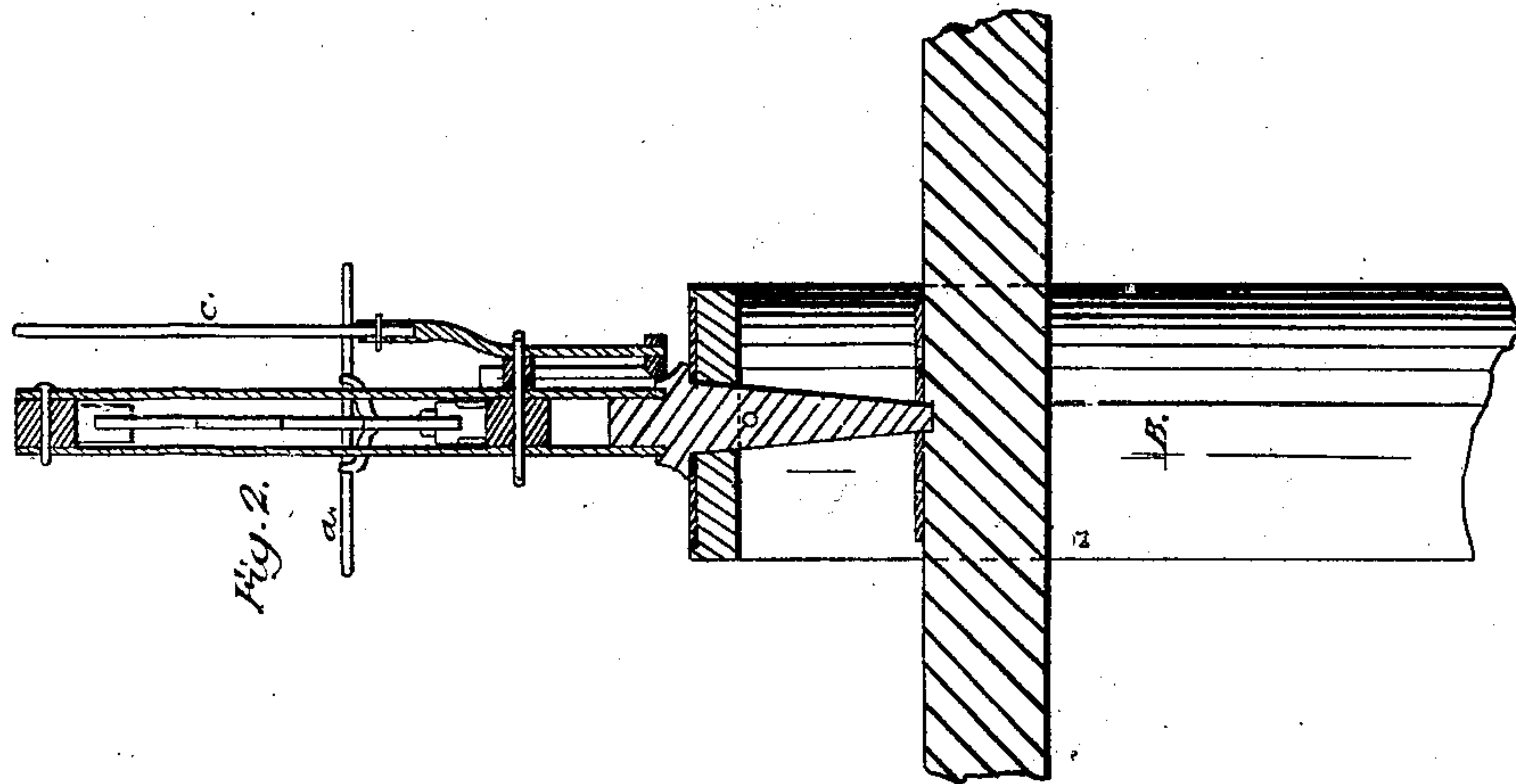


B. K. ROGERS.
SHIP PUMP.

No. 98,419.

Patented Dec. 28, 1869.



Witnesses:
Edw. Anderson
Janus P. Greve

Inventor:
B. K. Rodgers
per
Chapman & Hornum
attorneys

United States Patent Office.

BENJAMIN K. ROGERS, OF JONESPORT, MAINE.

Letters Patent No. 98,419, dated December 28, 1869.

- IMPROVEMENT IN SHIP-PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, BENJAMIN K. ROGERS, of Jonesport, in the county of Washington and State of Maine, have invented a new and valuable Improvement in Ships' Pumps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1, of the drawings, is a representation of a vertical section of my invention.

Figure 2 is a side vertical section of the same.

My invention relates to means for pumping water from the hold of a vessel; and

It consists mainly in the construction and novel arrangement of devices intended to serve as efficient means for the purpose designated.

The letter A, of the drawings, represents a ship's hold, and letters B, two pump-cylinders arranged therein.

The letters C represent plungers, and letters D, the rods attached thereto.

A cross-bar, E, unites the cylinders B at their tops, as shown.

The letter G represents a standard, with its bottom attached firmly to the deck of the vessel, and which passes upon and through the cross-bar E. Above this cross-bar, the standard G is slotted, as shown, to provide for the attachment and movements of the apparatus next mentioned.

The letter H represents a bent or curved lever, pivoted within the slot of standard G, and having cross-heads or handles *a* at each end, adapted for gangs of men, or by machinery, as the case may be.

The letter K represents a circular plate, attached to lever H, and the letter L, a circular ratchet, affixed to said lever, of the form shown.

The letter N represents the walking-beam, pivoted in the slot of standard G, and to the ends of which, the rods D are hinged, as shown.

The letter P represents a circular ratchet, attached to the lower side of walking-beam N, the teeth of which mesh and operate with the teeth of ratchet L, as shown on fig. 1.

The letter *c* represents a vertical lever, pivoted to the standard G, and having its bottom resting in a socket in the plate K. This lever is intended for use in conjunction with the lever H, or it may be used for pumping, at times when the bars or handles of lever H are removed or broken.

It will readily be perceived, that by the arrangement above described, immense power may be brought to bear upon the pumps at any moment, and that such power is greatly economized by the leverage secured by the ratchets, walking-beam, and lever-apparatus.

That portion of lever H that projects beyond the rods D is made removable, by means of the small pins *o*, that hold such extended parts in place. This last-named arrangement is sometimes required, in order that the extended ends or handles of lever H may be taken out of the way of the sailors or freight.

What I claim as my invention, and desire to secure by Letters Patent, is—

A ship's pump, having cylinders B, plungers C, rods D, standard G, levers H and *c*, plate K, ratchets L and P, and walking-beam N, constructed and arranged substantially as specified.

In testimony that I claim the above, I have hereunto subscribed my name, in the presence of two witnesses.

BENJAMIN K. ROGERS.

Witnesses:

CHAS. H. CUMMINGS,
CHARLES W. BARKER.